01/24/14 Agenda

- Warm up exercise 5.3

- I'll accept any late homework on Sections 5.4 & 5.5 until this ~~Friday 1/24~~ TUESDAY 1/28

- Quiz corrections:
  - Done outside of class
  - You can reference your notes
  - Half credit back if your answer is correct

- Review Homework - Chapter 6 Preview Worksheet

- Section 6.1 - Solve Systems by Graphing

Homework - Worksheet 6.1

Warm Up

Solve for y: $y =$ ~~~

$$-3x + 2y = 6$$

$+3x \qquad +3x$

$$2y = 3x + 6$$

$$\frac{2y}{2} = \frac{3x}{2} + \frac{6}{2}$$

$$y = \frac{3}{2}x + 3$$

Simplify:

$$(2x - 4y) - (x - 4y)$$

$$2x - 4y - x + 4y$$

$$x + 0$$

$$x$$

6.1 - Solve Systems of Equations by Graphing Target 6A

When will we use this???

Sprint charges $40 per month, plus $0.50 per text message. Verizon charges $20 per month, plus $1 per text message.

t = #TEXTS C = TOTAL COST

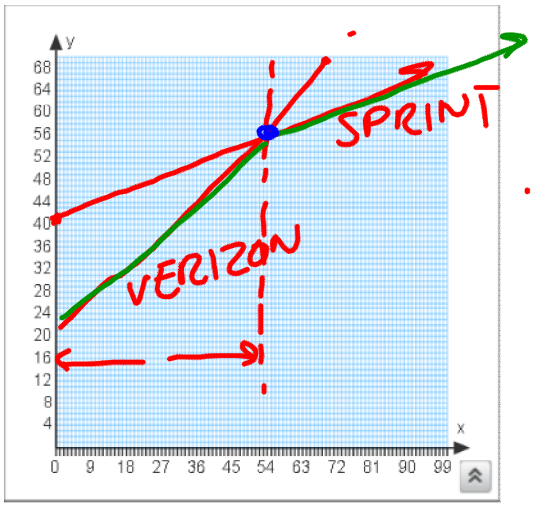
Sprint: $C = 0.50t + 40$ $m = \frac{1}{2}$

$y = mx + b$ $b = 40$

Verizon: $C = 1.00t + 20$

$= t + 20$ $m = 1$

$y = mx + b$ $b = 20$



Abbie sends about 50 texts per month, which provider should she choose?

Barry sends about 60 texts per month, which provider should he choose?

Carol sends about 90 texts per month, which

6.1 - Solve Systems of Equations by Graphing Target 6A

What is a "system of equations"

A "system of equations" is where you have 2 or more equations whose SOLUTION is an ordered pair (x, y) that makes all the EQUATIONS true

$$\begin{cases} 2x+3y=-17 \\ 3x+2y=-8 \end{cases}$$ is a system of equations whose solution is (2, -7)

x y

Plug (2, -7) into each equation and check:

$2(2)+3(-7) \stackrel{?}{=} -17$

$4+-21 \stackrel{?}{=} -17$

$-17=-17$

TRUE

$3(2)+2(-7) \stackrel{?}{=} -8$

$6+-14 \stackrel{?}{=} -8$

$-8=-8$

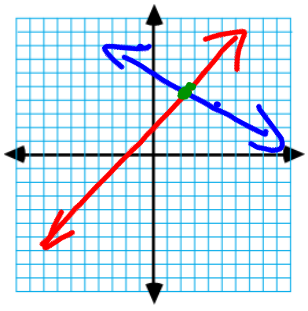
TRUE

You try:

$$\begin{cases} y=x+2 \\ y=3x-2 \end{cases}$$ is (2, 4) a solution to this system?

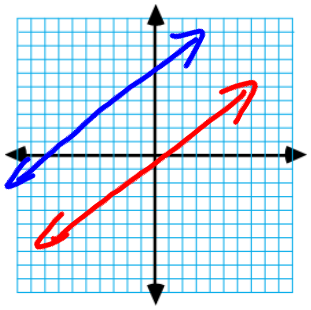
6.1 - Solve Systems of Equations by Graphing Target 6A

Is an ordered pair the only type of solution?

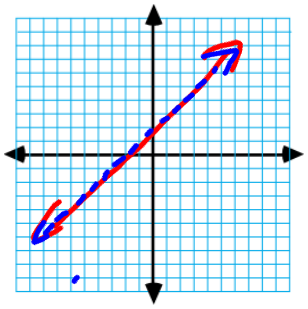


1 SOLUTION

(X, Y)



NO SOLUTION



∞ # OF SOLUTION

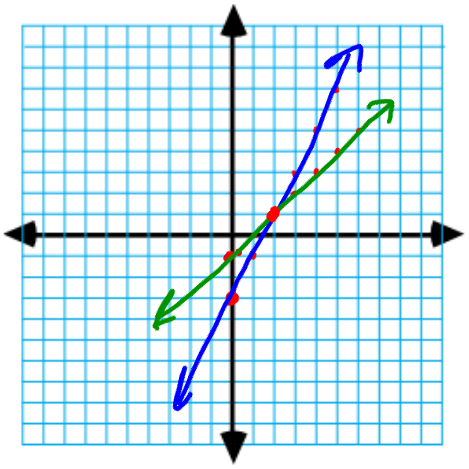
6.1 - Solve Systems of Equations by Graphing Target 6A

Solve these systems by graphing:

$y = 2x - 3$ $m = \frac{2}{1}$ $b = -3$

$y = x - 1$ $m = \frac{1}{1}$ $b = -1$

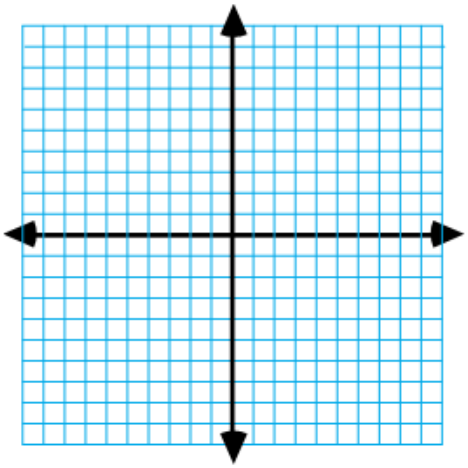
Solution: $(2, 1)$



$y = x + 2$

$x - y = 2$

Solution:



$y = 2x + 3$

$3y = 6x - 6$

Solution: